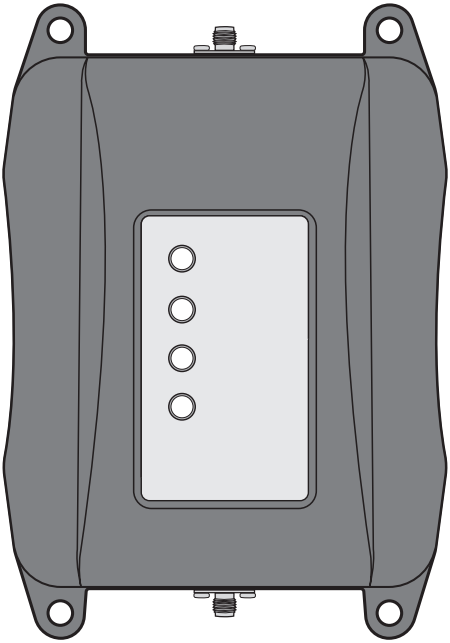
weboost®

ENGLISH



Drive 4G-X™

Cellular Signal Booster

ENGLISH

THE ALUMINUM CASING OF YOUR SIGNAL BOOSTER WILL ADJUST TO THE TEMPERATURE OF ITS ENVIRONMENT, BUT IS DESIGNED TO PROTECT THE SIGNAL BOOSTER TECHNOLOGY. FOR EXAMPLE, IN THE SUMMER, THE SIGNAL BOOSTER CASE MAY BE AS HOT AS 150 DEGREES INSIDE YOUR VEHICLE. THESE HIGH TEMPERATURES WILL NOT DAMAGE THE SIGNAL BOOSTER, NOR DO THEY POSE A FIRE RISK TO THE VEHICLE. AGAIN, BE SURE TO PLACE YOUR SIGNAL BOOSTER IN A LOCATION WITH ADEQUATE VENTILATION AND AWAY FROM DIRECT SUNLIGHT OR MOISTURE.

THE Drive 4G-X SIGNAL BOOSTER MAY REMAIN ON, IN VEHICLES WHOSE 12V DC POWER SOURCES DO NOT AUTOMATICALLY SHUTDOWN WHEN THE VEHICLE IS TURNED OFF. THIS COULD RESULT IN DISCHARGING THE VEHICLES BATTERY IN ONE TO TWO DAYS.

Installation Instructions for the Following weBoost Signal Boosters:

Drive 4G-X™ SmarTech III® Signal Booster
Model # 470010 FCC ID: PWO460021 IC: 4726A-460021

The term “IC” before the radio certification number only signifies that Industry Canada technical specifications were met.

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Package Contents

Kit Configuration

weBoost manufactures a wide variety of antennas to help you customize your Signal Booster for your specific application. See your dealer or visit *www.weboost.com* for more information.

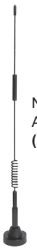
Drive 4G-X™
Signal Booster

Mini-Mag
Antenna
(301126)

Slim Low Profile
w/10' RG174
(301152)

Power Supply
6V/2A
(859913)

Optional Antenna Kits



NMO Mount
Antenna
(311112-17410)

Trucker
Antenna
(311133)

Marine
Antenna
(311130-5810)

Before Getting Started

Before you install your Drive 4G-X Booster and start enjoying improved cellular reception please do the following:

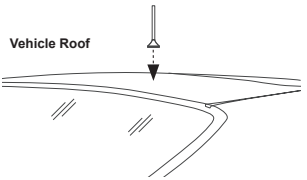
1. Read through all the installation steps. This will help you know what to expect from start to finish.
2. Watch the YouTube video demonstrating the Drive 4G-X Signal Boost installation at: https://cellphonesignalbooster.us
3. Familiarize yourself with all materials in your product package. This will allow you to know which pieces are referenced in the instructions.

Install

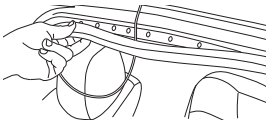
You can install your Drive 4G-X Signal Booster in your vehicle using the following steps. NOTE: Before completing your installation, create a "soft" installation by putting the components of your Drive 4G-X Signal Booster in place and testing the operation before mounting equipment.

1. Install the Outside Antenna. Select a location on top of the car that is:
   - Near the center of the vehicle's roof.
   - At least 12 inches from any other antennas.
   - Free of obstructions.
   - At least 6 inches from any windows (including sunroofs).
   - At least 8 inches from any people.

   The Outside Antenna must be installed vertically on a metallic surface.

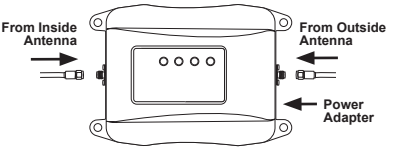


2. Run the Outside Antenna cable into the car. The cable is strong enough that it may be shut in most vehicle doors without damaging the cable. For a cleaner look, carefully pull down the door seal, run the cable under the seal, and push the seal back into place. This method reduces wear on the cable as the door opens and closes.



3. Install the Low-Profile Inside Antenna.
   - Identify a place on the right side of the driver's seat to mount the Inside Antenna. The location should be at least 18 inches but no more than 36 inches from where the cellular device will be used.
   - Install the Inside Antenna at the same angle as the cell phone when held in use or near the laptop's cellular data card to maximize signal strength.

   For a more professional look, you can install the Inside Antenna underneath a car seat cover or upholstery.
   - When you have tested the functionality of your Signal Booster, mount the Inside Antenna by peeling off the backing of the Velcro® and attach it to your selected location on the seat and secure the Inside Antenna.
4. Place and connect the Drive 4G-X Signal Booster.
   - Select a location for the Signal Booster that is free from excessive heat, direct sunlight and moisture and that has proper ventilation. Good locations include underneath a seat or under the dashboard.
   - Connect the wire from the Outside Antenna to the port labeled "Outside Antenna" on the Signal Booster.



   - Connect the wire from the Inside Antenna to the port labeled "Inside Antenna" on the Signal Booster.
   - Plug the power adapter into vehicle's 12V DC power supply and attach the cord to the side of Power Booster labeled "Power." NOTE: Do NOT connect the power to the Signal Booster until you have connected both the Inside and Outside Antennas.
   - Power up your Signal Booster by flipping the switch on the back of the DC power adapter on. A red light should appear on the power adapter.

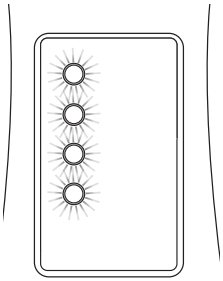
Note: The Drive 4G-X Signal Booster may remain on, in vehicles whose 12V DC power sources do not automatically shutdown when the vehicle is turned off. This could result in discharging the vehicles battery in one to two days.

Note: Some 12V DC power sources are shut down when the vehicle ignition is turned to off. Refer to your vehicle owners manual for specifics related to your vehicle.

Note: The aluminum casing of your Signal Booster will adjust to the temperature of its environment, but is designed to protect the Signal Booster technology. For example, in the summer, the Signal Booster case may be as hot as 150 degrees inside your vehicle. These high temperatures will NOT damage the Signal Booster, nor do they pose a fire risk to the vehicle. Again, be sure to place your Signal Booster in a location with adequate ventilation and away from direct sunlight or moisture.

Troubleshooting & Understanding Lights

The Signal Boost includes four indicator lights on the front of the Drive 4G-X. The indicator lights will either be green or red.



Green indicates that the booster is powered and operating at maximum gain.

Solid Red indicates that the booster has shut off on the associated frequencies to prevent oscillation (feedback).

Green/red Blinking indicates that the booster is operating at a reduced gain to prevent oscillation (feedback).

Fixing Red Light Issues

If one or more lights on the Signal Boost are red:

1. Make sure all connections are tight.
2. Increase the distance between the outside antenna and the Drive 4G-X, by moving them horizontally and/or vertically farther apart until the light(s) change to green. Remember to keep the antenna at least 6 inches from any window or sunroof.
3. Follow the same steps for a green/red blinking light until the light goes solid green.
4. If more separation is not possible and the coverage of the booster is too small with a green/red blinking light indicating reduced gain, contact the weBoost Customer Support Team for assistance: 800-501-3153.

Lights Off

1. Check connections on the power supply to see that it is firmly plugged into both the Drive 4G-X and the power source.
2. If using a DC power supply in your vehicle, ensure the power supply is properly inserted. Then check the 12 volt power from the car socket and the fuse. Replace the fuse if necessary.
3. If using a power strip in a building, ensure the power strip is plugged in and turned on and that power is coming from the outlet.

NOTE: The Signal Booster can be reset by disconnecting and reconnecting the power supply.

For additional descriptions on troubleshooting, see the install video at https://cellphonesignalbooster.us

Alternate Outside Antenna Installation: NMO Mount

Select a location for mounting the antenna. The best location would be centered on the vehicle roof, although other locations are acceptable.

Roof mount only: For mounting the antenna to the roof of your vehicle, use weBoost #905814 (3/8 in. w/RG58 cable) or #907414 (3/8 in. w/RG174 cable), which must be purchased separately **(A)**. Drill a hole in the desired location for mounting. The size of the hole should be 3/8 in.

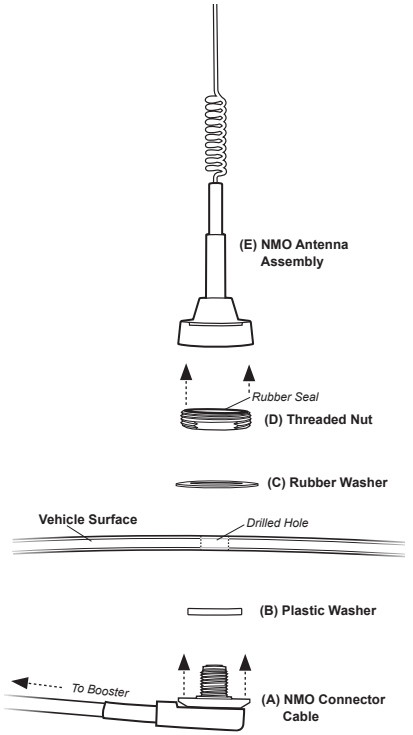
The plastic washer **(B)** should be placed over the threads of the NMO mount **(A)**. From the inside of the vehicle, insert the threaded portion of the mount up through the hole in the vehicle.

From the top of the vehicle, screw the threaded nut **(D)** onto the mount threads coming up through the roof and tighten until secure.

The black rubber washer **(C)** should now be positioned around the threaded nut.

Working from the inside of the vehicle, securely route and position the cable provided.

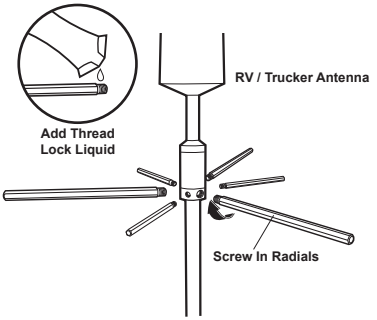
Screw the NMO antenna assembly **(E)** into place on top of the vehicle.



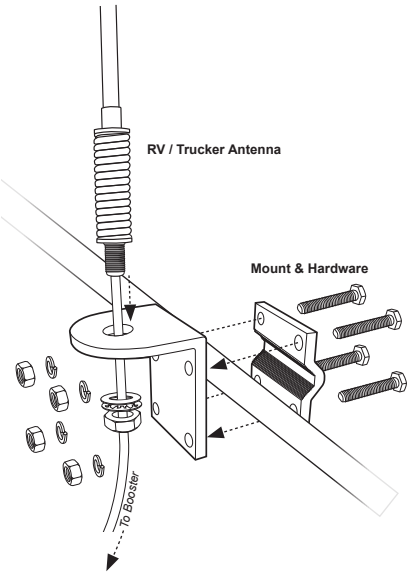
Alternate Outside Antenna Installation: RV/Trucker Antenna

Select a suitable location to install the antenna on your RV, as high on the vehicle as possible and at least 12 inches away from any other antenna. For best results, use weBoost 3-Way Mount (#901104). This bracket will enable you to mount the antenna on a mirror or attach it to the side of your RV.

Screw the six antenna radials into the holes under the plastic coil housing on the antenna. The included thread-locker liquid must be used to ensure the radials do not vibrate loose. Tighten the radials snugly with a wrench.



If you are installing on a mirror, clamp the mount to the mirror support and tighten the four nuts and bolts. If you are mounting directly to the side of your RV, remove the nuts, bolts and the smaller half of the mount and use the four holes in the larger half to attach it flush to the side of the RV, using screws or bolts, nuts and washers appropriate for your particular installation.

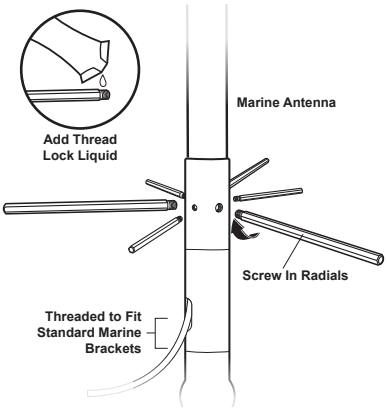


Alternate Outside Antenna Installation: Marine Antenna

The weBoost Marine Antenna should be mounted as high as possible with no obstructions. Marine antennas work on a “line-of-sight” basis, so the higher your

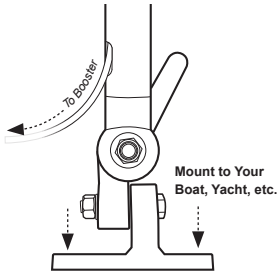
antenna is, the farther it can receive a signal. This gives you a greater range for your cellular communications.

Screw the six radials into the holes near the base of the antenna. The included thread-locker liquid must be used to ensure the radials do not vibrate loose. Tighten the radials snugly with a wrench.



Use the 1 inch 14-thread coupler to attach the antenna to any standard marine mounting bracket. The coupler provides a feed through for routing the connecting cable, which will run to your cellular device, or weBoost Signal Booster.

Once the mounting bracket is attached to your boat, yach, etc., attach the connecting cable to the antenna's 7 inches coax cable and route it to the location of your Signal Booster.



Additional FAQ:

What hours can I contact customer support?

Customer Support can be reached from 7:00am to 6:00pm MST, by calling (800-501-3153), or by email, at sales@cellphonesignalbooster.us

How does weather affect the performance of my outside antenna?

Water vapor (e.g. rain, fog, snow or other precipitation) creates an effective filter to cellular signal. In times of heavy precipitation, you may see less performance.

What's the difference between the 800 MHz and the 1900 MHz bands? How do I know which MHz band my cell phone uses?

The Drive 4G-X works with all major North American cellular providers on the 800 & 1900 MHz frequencies. Traditionally, 800/1900MHz are associated with voice and 3G data; while 700MHz and 1700/2100MHz are associated with 4G data.

Carrier Frequency Use

We recommend visiting https://cellphonesignalbooster.us for information regarding the frequency band used by your cell service provider in a specific geographical location.

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Mobile Antenna Kit Options

Inside Antenna Options

Slim Low Profile
301152 - w/ 10' RG174

Low Profile
311106 - w/ 10' RG58

Outside Antenna Options

Mini-Mag
301126 w/ 12.5 RG174 cable- SMA

12" Mag Mount
311128 w/ 12.5' RG174
314202 w/ 12.5' RG174
311703 w/ 12.5' RG174

Trucker Antenna
311701 w/10.5' RG58
311101 w/10.5' RG58

Trucker Antenna
311119 w/13.5' RG58
311133 w/13.5' RG58

Marine Antenna
311130-5810 w/10.5' RG58

Glass Mount
311102 w/14' RG58

NMO Antenna
Kit 314203-5810
- 800/900/1900 NMO Antenna
- 10' RG58 Cable

Kit 311112-17410
- 800/1900 NMO Antenna
- 14' RG174 Cable

Kit 314203-17410
- 800/900/1900 NMO Antenna
- 14' RG174 Cable

Kit 311104-17410
- 800/900/1900 NMO Antenna
- 10' RG174 Cable

Kit 311104-5810
- 800/900/1900 NMO Antenna
- 10' RG58 Cable

Kit 311112-5810
- 800/1900 NMO Antenna
- 10' RG58 Cable

Fixed Antenna Kit Options

Inside Antenna Options

Kit 309900-50N
- 2- Wall Panel antennas
- 1- 50 ohm 3-Way Splitter

Kit 309905-50N
- 3- Wall Panel Antennas
- 3- 2-Way 50 Ohm Splitters

Kit 309902-75F
- 2- Wall Panel Antennas
- 1-3-Way 75Ohm Splitter

Kit 309903-75F
- 3- Wall Panel Antennas
- 3- 2-Way 75Ohm Splitters

Kit 309904-75F
- 1- Wall Panel Antenna
- 1- 2-Way 75 Ohm Splitter

Kit 301121-40010
- 50 Ohm Dome Antenna
- 10' LMR400

Kit 311135-40060
- 50 Ohm Wall Panel Antenna
- 60' LMR400

Kit 301151-0610
- 75 Ohm Dome Antenna
- 10' RG6 Cable

Kit 311135-5820
- 50 Ohm Wall mount Panel Antenna
- 20' RG58 Cablet

Kit 301151-1110
- 75 Ohm Dome Antenna
- 10' RG11 cable

Kit 311155-1150
- 75 Ohm Wall mount Panel Antenna
- 50' RG11 Cable

Kit 311155-0630
- 75 Ohm Wall mount Panel Antenna
- 30' RG11 Cable

50 Ohm Outside Antenna Kit

Kit 311203-5820
- Omni-Directional antenna
- 20' RG58 Cable

Kit 311203-5820
- Omni-Directional antenna
- 20' RG58 Cable

Kit 314453-5825
- 50 Ohm Pole Mount Panel Antenna
- 25' RG58 Cable

Kit 314411-5825
- 50 Ohm Wide Band Directional
- 25' RG58 Cable

Kit 314411-40075
- 50 Ohm Wide Band Directional Antenna
- 75' LMR400 Cable

Kit 311203-40020
- Omni-Directional antenna
- 20' LMR400 Cable

Kit 311129-400100
- 800 MHz Yagi Antenna
- 100' LMR400 Cable

Kit 311129-5840
- 800 MHz Yagi Directional
- 40' RG58 Cable

Kit 311129-400100
- 800 MHz Yagi Antenna
- 100' LMR400 Cable

Kit 314453-40075
- 50 Ohm Pole Mount Panel Antenna
- 75' LMR400 Cable

Kit 301111-400170
- Yagi Directional w/ N-Female
- 170' LMR400

Kit 311124-5830
- 1900 MHz Yagi Antenna
- 30' RG58 Cable

75 Ohm Outside Antenna Kit

Kit 301111-0675
- Yagi Directional Antenna
- 75' RG6 Cable
- N-Male to F-Female adapter

Kit 311201-0620
- Omni Antenna w/ F-Female
- 20' RG6 Cable

Kit 311129-0660
- 800 MHz Yagi Directional
- 60' RG6 Cable
- N-Male to F-Female adapter

Kit 311124-0650
- 1900 MHz Yagi Directional
- 50' RG6 Cable
- N-Male to F-Female adapter

Kit 314473-0640
- 75 Ohm Pole Mount Panel Antenna
- 40' RG6 Cable

Kit 311141-0620
- 75 Ohm Grey Brick Antenna
- 20' RG6 Cable

Kit 301111-11140
- Yagi Directional Antenna
- 140' RG11 Cable
- N-Male to F-Female adapter

Kit 311201-1120
- Omni Directional w/ F-Female
- 20' RG11 Cable

Kit 311129-11110
- 800 MHz Yagi Directional
- 110' RG11 Cable
- N-Male to F-Female adapter

Kit 311124-1180
- 1900 MHz Yagi Directional
- 80' RG11 Cable
- N-Male to F-Female adapter

Kit 314473-1175
- 75 Ohm Pole Mount Panel Antenna
- 75' RG11 Cable

Kit 314475-0630
- 75 Ohm Wide Band Directional
- 30' RG6 Cable

Kit 314475-1175
- 75 Ohm Wide Band Directional
- 75' RG11 Cable

Kit 311141-1120
- 75 Ohm Grey Brick Antenna
- 20' RG11 Cable

Safety Guidelines

⚠ **WARNING:** The inside panel and dome antennas must have 6' of separation distance from all active users, and the low profile antennas must have 18" of separation distance from all active users.

⚠ **WARNING:** Connecting the Signal Booster directly to the cell phone with use of an adapter will damage the cell phone.

⚠ **WARNING:** Use only the power supply provided in this package. Use of a non-weBoost product may damage your equipment.

⚠ **WARNING:** The Signal Booster unit is designed for use in an indoor, temperature-controlled environment (less than 150 degrees Fahrenheit). It is not intended for use in attics, vehicles or similar locations subject to temperatures in excess of that range.

⚠ **WARNING:** The Outside Antenna must be installed no higher than 10 meters (32'9") above ground.

⚠ **RF SAFETY WARNING:** Any antenna used with this device must be located at least 8 inches from all persons.

This is a CONSUMER device.

BEFORE USE, you **MUST REGISTER THIS DEVICE** with your wireless provider and have your provider's consent. Most wireless providers consent to the use of signal boosters. Some providers may not consent to the use of this device on their network. If you are unsure, contact your provider.

You **MUST** operate this device with approved antennas and cables as specified by the manufacturer. Antennas **MUST** be installed at least 20 cm (8 inches) from any person.

You **MUST** cease operating this device immediately if requested by the FCC or a licensed wireless service provider.

WARNING. E911 location information may not be provided or may be inaccurate for calls served by using this device.

FOR MORE INFORMATION ON REGISTERING YOUR SIGNAL BOOSTER WITH YOUR WIRELESS PROVIDER, PLEASE SEE BELOW:

- **Sprint:** http://www.sprint.com/legal/fcc_boosters.html
- **T-Mobile/MetroPCS:** https://support.t-mobile.com/docs/DOC-9827
- **Verizon Wireless:** http://www.verizonwireless.com/wcms/consumer/register-signal-booster.html
- **AT&T:** https://securec45.securewebsession.com/attsignalbooster.com/
- **U.S. Cellular:** http://www.uscellular.com/uscellular/support/fcc-booster-registration.jsp

Notes:

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Signal Booster Specifications

	Drive 4G-X				
Model Number	470010				
Connectors	SMA				
Antenna Impedance	50 Ohms				
Frequency	698-716 MHz, 729-756 MHz, 777-786 MHz, 824-894 MHz, 1850-1995 MHz, 1710-1755 MHz / 2110-2155 Mhz				
Passband Gain (typical)	**700 MHz Band 12/17** 45.8	**700 MHz Band 13** 46.8	**800 MHz** 46.8	**1700/2100 MHz** 45.2	**1900 MHz** 44.6
20 dB Bandwidth (MHz)	**700 MHz Band 12/17**	**700 MHz Band13**	**800 MHz**	**1700/2100 MHz**	**1900 MHz**
Typical	30.6	31.0	37.9	79.2	77.3
Maximum	35.2	35.2	39.9	79.8	83.2
Power output for single cell phone (Uplink) dBm	**700 MHz Band 12/17**	**700 MHz Band13**	**800 MHz**	**1700 MHz**	**1900 MHz**
	24.84	24.35	23.4	21.3	24.43
Power output for single cell phone (Downlink) dBm	**700 MHz Band 12/17**	**700 MHz Band13**	**800 MHz**	**2100 MHz**	**1900 MHz**
	2.87	2.79	2.8	2.0	1.92
Power output for multiple received channels (Uplink) dBm	**Maximum Power**				
No. Tones	**700 MHz Band12/17**	**700 MHz Band13**	**800 MHz**	**1700 MHz**	**1900 MHz**
2	25.4	23.9	22.9	22.8	24.9
3	21.8	20.4	19.4	19.3	21.3
4	19.3	17.9	16.9	16.8	18.8
5	17.4	16.0	15.0	14.8	16.9
6	15.8	14.4	13.4	13.2	15.3
Power output for multiple received channels (Downlinklink) dBm	**Maximum Power**				
No. Tones	**700 MHz Band12/17**	**700 MHz Band13**	**800 MHz**	**2100 MHz**	**1900 MHz**
2	4.8	5.6	5.4	6.3	4.5
3	1.3	2.1	1.9	2.8	0.9
4	-1.2	-0.4	-0.6	0.3	-1.6
5	-3.2	-2.4	-2.6	-1.6	-3.5
6	-4.7	-4.0	-4.2	-3.2	-5.1
Noise Figure	5 dB nominal				
Isolation	> 90 dB				
Power Requirements	6 V 2 A				

Each Signal Booster is individually tested and factory set to ensure FCC compliance. The Signal Booster cannot be adjusted without factory reprogramming or disabling the hardware. The Signal Booster will amplify, but not alter incoming and outgoing signals in order to increase coverage of authorized frequency bands only. If the Signal Booster is not in use for five minutes, it will reduce gain until a signal is detected. If a detected signal is too high in a frequency band, or if the Signal Booster detects an oscillation, the Signal Booster will automatically turn the power off on that band. For a detected oscillation the Signal Booster will automatically resume normal operation after a minimum of 1 minute. After 5 (five) such automatic restarts, any problematic bands are permanently shut off until the Signal Booster has been manually restarted by momentarily removing power from the Signal Booster. Noise power, gain, and linearity are maintained by the Signal Booster's microprocessor.

The Manufacturer's rated output power of this equipment is for single carrier operation. For situations when multiple carrier signals are present, the rating would have to be reduced by 3.5 dB, especially where the output signal is re-radiated and can cause interference to adjacent band users. This power reduction is to be by means of input power or gain reduction and not by an attenuator at the output of the device.

This device complies with Part 15 of FCC rules. Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by weBoost could void the authority to operate this equipment.

2-Year Warranty

weBoost Signal Boosters are warranted for two (2) years against defects in workmanship and/or materials. Warranty cases may be resolved by returning the product directly to the reseller with a dated proof of purchase.

Signal Boosters may also be returned directly to the manufacturer at the consumer's expense, with a dated proof of purchase and a Returned Material Authorization (RMA) number supplied by weBoost. weBoost shall, at its option, either repair or replace the product. weBoost will pay for delivery of the repaired or replaced product back to the original consumer if located within the continental U.S.

This warranty does not apply to any Signal Boosters determined by weBoost to have been subjected to misuse, abuse, neglect, or mishandling that alters or damages physical or electronic properties.

Failure to use a surge protected AC Power Strip with at least a 1000 Joule rating will void your warranty.

RMA numbers may be obtained by contacting Customer Support at 800-501-3153.

Disclaimer: The information provided by weBoost is believed to be complete and accurate. However, no responsibility is assumed by weBoost for any business or personal losses arising from its use, or for any infringements of patents or other rights of third parties that may result from its use.

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weBoost products covered by U.S. patent(s) and pending application(s)

weboost